Highly encouraging rock chip results returned from West Pilbara Iron Ore Project

HIGHLIGHTS

- **Highly encouraging iron ore rock chips from first pass exploration at the West Pilbara Project, Western Australia.**
- **Significant rock chip results include:**
  - **55.27% Fe, 62.4% Ca Fe, 2.27% Al_2O_3, 6.74% SiO_2, 0.02% P, 11.42% LOI**
  - **54.94% Fe, 62.22% Ca Fe, 2.1% Al_2O3, 7.1% SiO_2, 0.015% P, 11.7% LOI**
  - **53.73% Fe, 60.27% Ca Fe, 2.65% Al_2O_3, 8.88% SiO_2, 0.002% P, 10.85% LOI**
  - **52.08% Fe, 58.35% Ca Fe, 2.82% Al_2O_3, 10.02% SiO_2, 0.470% P, 10.75% LOI**
- **Large scale mineralisation evident over 1.7km of strike and remains open.**
- **Evidence of Channel Iron Deposit (CID) mineralisation 13 km north of Rio Tinto's Mesa A mine.**
- **Follow-up fieldwork planned for the coming weeks to expand the footprint of mineralisation.**
- **The project added to Leeuwin's portfolio is a result of internal project generation.**

Leeuwin Metals Ltd (**Leeuwin** or the **Company**) (**ASX: LM1**) is pleased to announce that results have been received from first pass rock chip sampling program conducted at its West Pilbara Iron Ore Project in Western Australia.

Managing Director, Christopher Piggott, commented:

"The assay results received from West Pilbara Iron Ore Project provide an exciting start to revealing the extent of a potential CID deposits in a world class region in Western Australia. With these first pass results there is potential for a project of scale, with encouraging grades and low impurities. The Pilbara is home to World Class Iron Ore mines with the region well supported by excellent infrastructure within access to Leeuwin's tenure.

With exploration ongoing by Leeuwin's dedicated staff at the Cross Lake Lithium Project in Manitoba, Canada and work programs running in parallel by the Western Australia team, we look forward to providing strong news to market in the second half of 2024."

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West Pilbara Iron Ore Project

The West Pilbara Iron Ore Project (the Project) has identified compelling iron ore targets, returning highly encouraging iron ore values of over 50% Fe along a 1.7 km strike. This target area was identified through satellite imagery and regional mapping. Mineralisation remains open along strike with follow up field work to commence in the coming weeks.

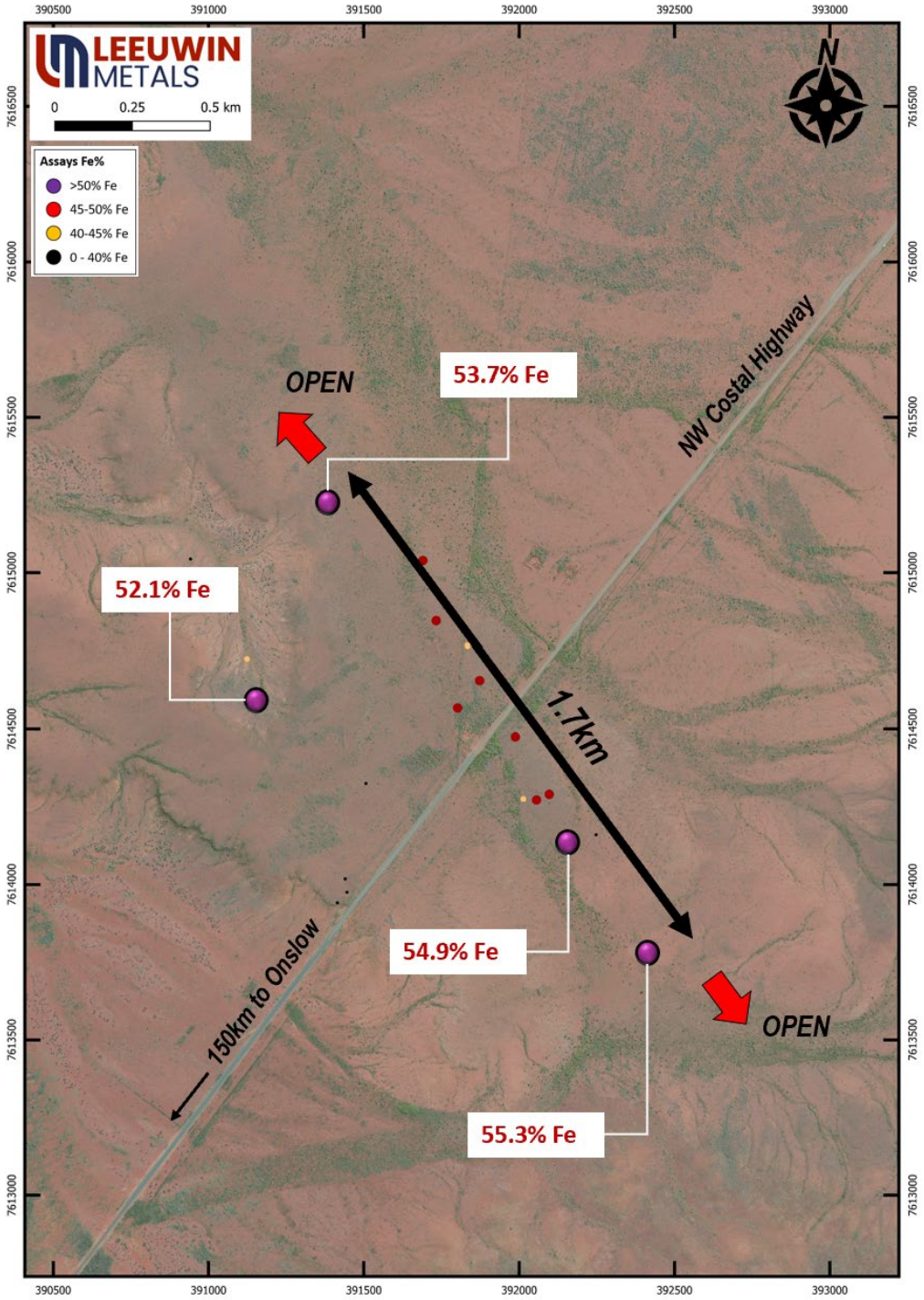

Figure 1: Mapped CID mineralisation has been identified over 1.7km strike and remains open.

Overview

The Project area is prospective for Channel Iron Deposit (CID) with multiple target areas present within the Project. The target areas are located close to the North-West Costal Highway, with excellent infrastructure being 150km southwest of Ashburton Port (Onslow) and Port of Port Headland 380km northeast accessed via sealed highway. Situated in close proximity to Rio Tinto's Mesa A mine, CZR Resources' Robe Mesa project, and Macro Metals' Deepdale project refer Figure 2.

Today's results (refer Appendix B for full details) are located just 13 km north of Rio Tinto's Mesa A mine, which is a substantial Channel Iron Deposit (CID) mineralisation. This strategic location not only aligns us with significant industry players but also enhances our prospects to advance any discovery within the project.

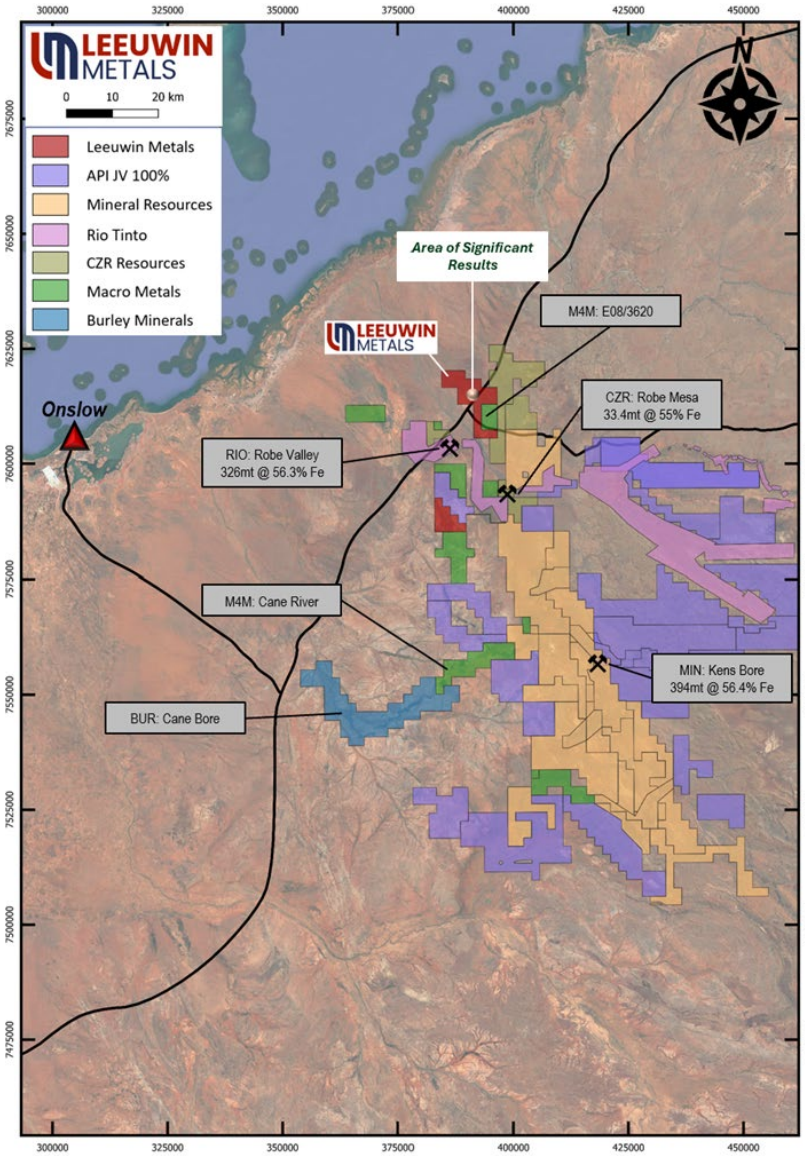

Figure 2 West Pilbara Project and peer map showing proximity to significant CID resources* regionally.

* Mineral Resources Ltd, ASX announcement, 22 September 2023 "Minerals Resources and Ore Reserves Update"
* CZR Resources, ASX announcement, 10 October 2023, "Outstanding Financial Returns from Robe Mesa DFS"
* Rio Tinto Iron Ore, Robe Valley; Proven and Probable Reserves, 31 December 2020.

Work Program

Exploration focused on the targets identified in Figure 3, these target areas that are prospective for buried Channel Iron Deposits (CID) within the BBQ Valley trend, where transported cover is present. Initial field work indicates potential for sub cropping and outcropping CID mineralisation. These findings highlight the BBQ Valley trend as a priority for follow-up field work, including detailed mapping, sampling, and geophysical surveys to better delineate the mineralisation. Mineralisation is a fine to coarse conglomerate comprised of iron rich detrital material, dominated by goethite dominant pisolites and cemented by iron oxides, that has undergone variable amounts of weathering and alteration.

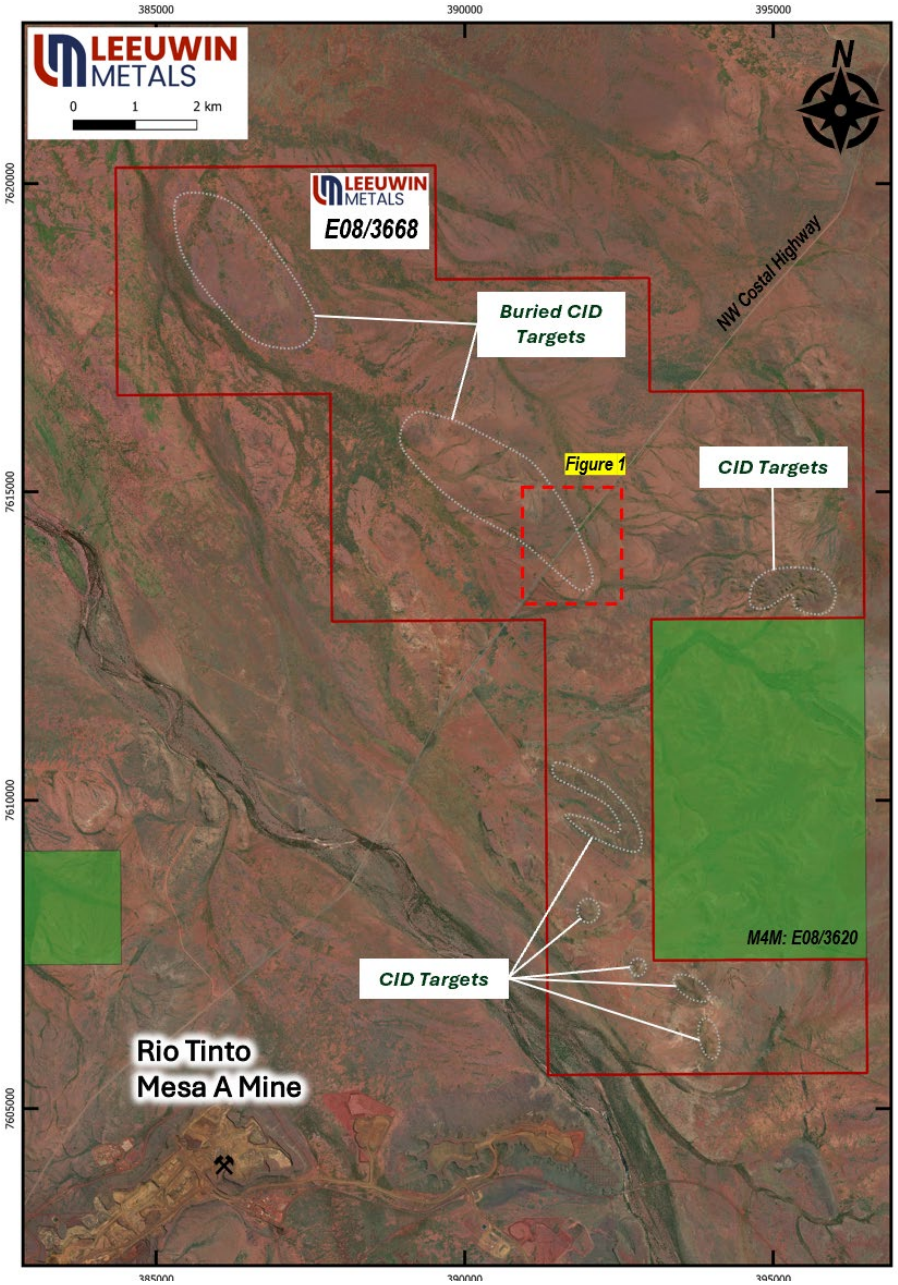

Figure 3 CID target areas have been identified as high priority targets from today's results within areas identified as a buried CID.

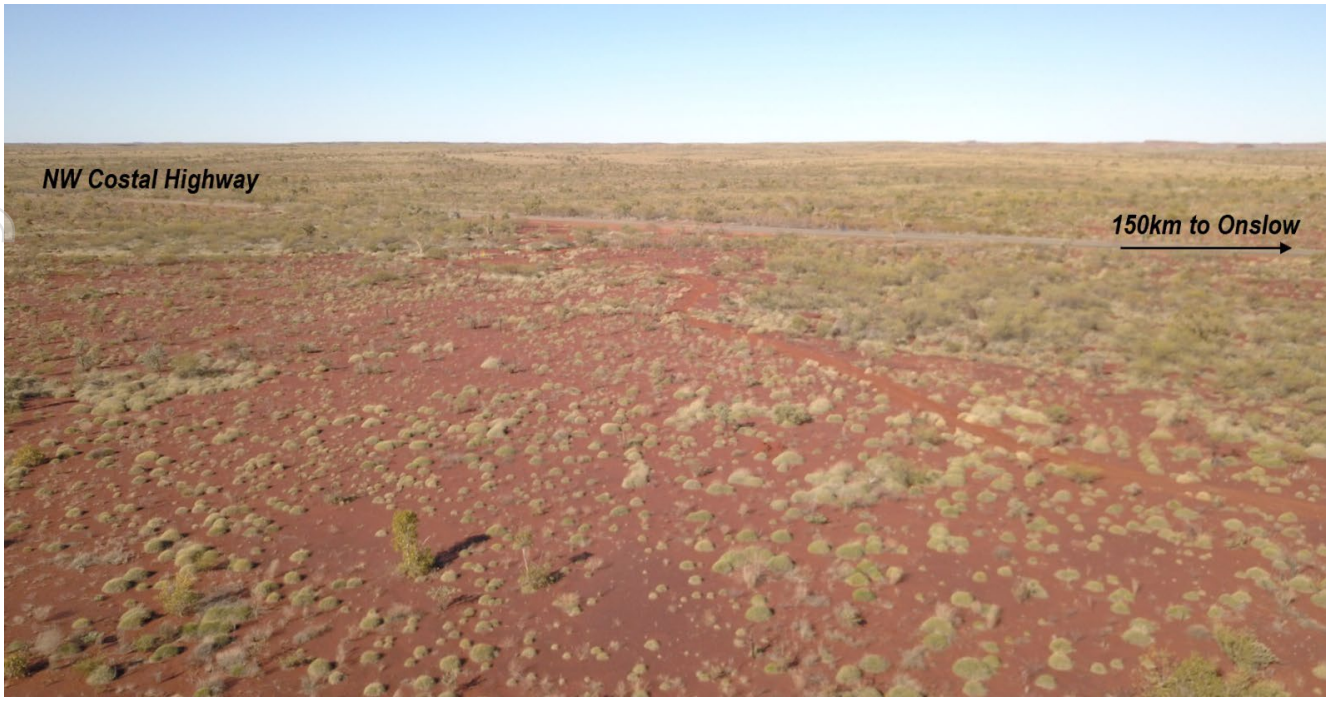

Figure 4 Example of the landscape within the target area where sampling returned 55% Fe.

Figure 5 PWRK0090 (left) returned 55.27% Fe, PWRK0103 (right) returned 53.73% Fe .

Future Plans

To further evaluate the Project, the Company plans to commenced a two week field mapping and rock chip sampling program. The tenure is currently pending, with a priority on advancing it to grant by finalising all necessary third-party agreements.

Ends

This announcement has been authorised by the Board of Directors.

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About Us

Leeuwin Metals Ltd (**Leeuwin**) is a mineral explorer with projects located in Canada and Western Australia which are highly prospective for nickel, copper, PGE, lithium, and iron ore.

Led by a skilled team with expertise in project generation, discovery, development, operations, and transactions.

Cross Lake Lithium Project is highly prospective for LCT type pegmatites. The project is located in the Cross Lake greenstone belt with previous drilling intercepting Spodumene bearing pegmatites with grades of +1% Li_2O present.

William Lake Nickel Project is a high-grade Nickel, Copper and PGE mineralisation hosted in sulphides. The project is located in the Thompson Nickel Belt, which is highly fertile with several existing nickel mines in production.

West Pilbara Iron Ore is considered prospective for Channel Iron (CID) mineralisation within the Pilbara region of Western Australia. Sampling has identified iron grades of up to 55% Fe.

APPENDIX A: IMPORTANT NOTICES

Competent Person Statement

The information in this announcement relating to geology and planning is based on and fairly represents information compiled by Mr Christopher Piggott, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and the Managing Director of the Company. Mr Piggott has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Piggott consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward Looking Statements

Various statements in this announcement constitute statements relating to intentions, future acts, and events. Such statements are generally classified as "forward looking statements" and involve known and unknown risks, uncertainties and other important factors that could cause those future acts, events, and circumstances to differ materially from what is presented or implicitly portrayed herein. The Company gives no assurances that the anticipated results, performance, or achievements expressed or implied in these forward-looking statements will be achieved.

APPENDIX B: JORC CODE, 2012 EDITION

Table 1: Rock chip sampling results and location information. Coordinates are in MGA94 z50 projection.

Sample Number	Easting	Northing	Fe %	FeCa %	Si_2O %	Al_2O_3 %	P %	S %	CaO %	LOI %
PWRK0090	**392406**	**7613790**	**55.27**	**62.40**	**6.74**	**2.27**	**0.02**	**0.019**	**0.02**	**11.42**
PWRK0091	392014	7614275	41.23	45.37	27.93	3.21	0.01	0.018	0.06	9.12
PWRK0092	392248	7614160	32.4	35.10	41.15	3.52	0.01	0.023	0.08	7.68
PWRK0093	392056	7614272	49.46	55.46	13.99	3.59	0.014	0.024	0.03	10.82
PWRK0094	**392155**	**7614135**	**54.94**	**62.22**	**7.1**	**2.1**	**0.015**	**0.023**	**0.05**	**11.7**
PWRK0095	392097	7614290	46.37	51.36	19.41	3.7	0.024	0.07	0.04	9.71
PWRK0096	391834	7614767	44.67	49.41	22.11	3.45	0.008	0.04	0.07	9.6
PWRK0097	391988	7614475	47.42	52.62	18.43	3.49	0.012	0.025	0.02	9.88
PWRK0098	391873	7614656	45.15	49.82	22.95	2.36	0.01	0.089	0.16	9.37
PWRK0099	391733	7614846	45.83	51.30	17.84	5.06	0.01	0.047	0.11	10.67
PWRK0100	391802	7614568	49.87	56.39	12.29	3.91	0.017	0.044	0.07	11.57
PWRK0101	391690	7615039	49.35	55.77	12.91	4.33	0.019	0.037	0.05	11.51
PWRK0102	390942	7615044	30.20	32.29	44.45	4.37	0.138	0.018	0.11	6.48
PWRK0103	**391386**	**7615221**	**53.73**	**60.27**	**8.88**	**2.65**	**0.012**	**0.014**	**0.02**	**10.85**
PWRK0104	391124	7614726	41.87	45.73	25.99	3.53	0.355	0.026	0.07	8.44
PWRK0105	**391146**	**7614593**	**52.08**	**58.35**	**10.02**	**2.82**	**0.47**	**0.037**	**0.13**	**10.75**
PWRK0106	391507	7614325	25.05	27.01	39	6.08	0.019	0.051	0.11	7.27

Notes:
Loss on Ignition (LOI) Was calculated by H2O/LOI by TGA Furnace
FeCa % - Calcined Fe grade is calculated as Fe%/ (100-LOI%)*100

Section 1: Sampling techniques and data

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	Rock chip sampling was completed as reconnaissance with sampling focused on interpreted channel iron mineralisation and detrital iron mineralisation.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Rock chip sampling was undertaken across exposed channel iron deposit type mineralisation present mesas.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g., 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.	2-3kg samples were submitted to Nagrom Laboratories. Samples were prepared and pulverised using Nagrom standard practice. Pulp material was analysed using XRF technique (Code: XRF104). Loss On Ignition (LOI) analysis was completed by Thermogravimetric Analyser (Nagrom Code: TGA002). The sample preparation and analysis methods are considered industry standard for the style of mineralisation being tested.
Drilling techniques	Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	Not applicable as no drilling has been undertaken.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Not applicable as no drilling has been undertaken.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Not applicable as no drilling has been undertaken.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Not applicable as no drilling has been undertaken.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	All rock chip samples were photographed and were geologically logged. The rock chip samples are for the purposes of understanding the nature of mineralisation, not for the inclusion in a mineral resource estimation.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.)	Logging included colour, composition, textual analysis and pisolite size quantification. Geological

Criteria	JORC Code explanation	Commentary
	photography.	logging is both qualitative and where relevant quantitative.
	The total length and percentage of the relevant intersections logged.	Not applicable as no drilling has been undertaken.
Subsampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable as no drilling has been undertaken.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Samples were dried, pulverised and split at Nagrom Laboratory.
	For all sample types, the nature, quality, and appropriateness of the sample preparation technique.	The sampling protocol implemented is considered to be appropriate and industry standard for dealing with rock chip samples.
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	QAQC protocols included the use of internal lab standards. Further QAQC including field duplicate samples, company standard reference samples and umpire laboratory analysis will be utilised in future more extensive sampling programs.
	Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.	Samples were taken on a regular grid in order to reduce the impact of selection bias of material and aimed towards understanding the overall average grade of material. Initial samples were taken to gain an understanding of the overall grade and deleterious element profile. Further systematic sampling is required in order to ensure that the sampling undertaken is representative and that QAQC protocols are adhered to.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are appropriate for the grain size of the material.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	The assay methods utilised are considered industry standard.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No geophysical tools or portable XRF instruments were utilised.
	Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.	Due to the limited number of samples, only internal lab duplicate tests and lab standards were utilised for analysis purposes. Further systematic sampling is planned which will incorporate rigorous QAQC protocols.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Results from sampling have been under the supervision of Leeuwin Geologists and has been verified by professional consultant geologists. Refer

Criteria	JORC Code explanation	Commentary
		Appendix B - Table 1.
	The use of twinned holes.	Not applicable as no new drilling is being reported.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All data has been documented in digital format, verified and stored by the Company.
	Discuss any adjustment to assay data.	No adjustments were made to the assay data.
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Samples were collected with a handheld GPS with the collar location recorded in a digital database.
	Specification of the grid system used.	Any grid references are presented in MGD94 zone 50.
	Quality and adequacy of topographic control.	Topographic control is based on government topographic maps and GPS. This method of topographic control is deemed adequate at this exploration stage of the project.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Due to the reconnaissance stage of the Project the sample spacing is highly variable.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied	Data spacing is not considered sufficient to establish geological and grade continuities for Mineral Resource estimation at this stage.
	Whether sample compositing has been applied.	No sample compositing has been applied.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Rock chip sampling is only point samples and as such is not effected by orientations.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Not applicable as no new drilling is being reported.
Sample security	The measures taken to ensure sample security.	Recent resampling was secured by Leeuwin personnel and were delivered directly to the Nagrom laboratory for assay.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	There have been no audits or reviews of sampling techniques and data.

Section 2: Reporting of exploration results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	E08/3668 is an exploration licence application 100% owned by Leeuwin Metals Pty Ltd wholly owned subsidiary Voyage Minerals Pty Ltd. Objections have been lodged by Rio Tinto to the application due to the presence of miscellaneous licence outside of the target area. These matters are being negotiated through entering into access agreements.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Exploration in the area is limited. 1991-1992 Poseidon Exploration explored the area primarily for Base Metals. Zanthus Resources completed exploration in the area from 2006-2023, work focused on geophysics, aerial imagery and first pass geochemical sampling. No significant results have ever been reported from the area.
Geology	Deposit type, geological setting and style of mineralisation.	CIDs are primarily a clast-supported very-fine to very-coarse sandstone to granule-conglomerate comprised of iron-rich detrital material that has undergone variable amounts of weathering and alteration. The clasts are typically composed of goethite ± hematite which are cemented by iron oxide. The matrix is goethite and is often of similar grade to the pelletoids.
Drillhole information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: • easting and northing of the drillhole collar • elevation or RL (elevation above sea level in metres) of the drillhole collar • dip and azimuth of the hole • downhole length and interception depth hole length.	No drilling activities are being reported. Please refer to Appendix B - Table 1 of the release for co-ordinates and rock chip samples.
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	All information including samples with no significant results has been included in the body of this results.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high	All sample results have been reported including those with no significant results.

Criteria	JORC Code explanation	Commentary
	grades) and cut-off grades are usually Material and should be stated.	
Relationship between mineralisation widths and intercept lengths	If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'downhole length, true width not known').	No drilling activities are being reported.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.	Exploration plans and diagrams are included in the body of this release as deemed appropriate by the Competent Person.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All relevant and material exploration data for the target areas discussed, has been reported or referenced.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	All relevant and material exploration data for the target areas discussed, has been reported or referenced.
Further work	The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).	Please refer to the body of this release, noting further exploration is warranted across the Exploration Licence to improve the understanding of the mineralisation.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Maps including the location of samples taken are included in the body of this release.